REMARKS

I. Status of Pending Claims

Claims 22, 25, 28-30, 32-39, 57, 58, 60-89, and 96 are pending in this application, with claims 22, 28, 29, 32, 33, 38, 57, 60, 61, 62, 70, and 84 being independent. In the Office Action dated July 7, 2006, the Examiner rejected each pending claim, except independent claim 32[1], under 35 U.S.C. § 103(a) over Japanese Publication No. JP 08-257136 to Asano et al. ("Asano") in view of U.S. Patent No. 4,984,581 to Stice ("Stice") either alone, or further in view one or more of U.S. Patent No. 5,174,302 to Palmer ("Palmer"); U.S. Patent No. 5,947,940 to Beisel ("Beisel"), and U.S. Patent No. 4,763,647 to Gambale ("Gambale").

With this reply, Applicants have amended claims 22, 28, 29, 33, and 38 to more clearly define the claimed invention. In addition, new claim 97 has been added. Support for these amendments is provided at least in drawing Fig. 2 and page 10, lines 5-15 of the specification. No new matter had been added.

[1] Despite the fact that claim 32 is listed as being rejected on line six (6) of the Office Action Summary form PTOL-326 accompanying the July 7, 2006 Office Action, the content of the Office Action omits any discussion of claim 32. Applicants request clarification as to the status of claim 32 in response to this reply. Should the Examiner reject claim 32, Applicants request that such rejection be made non-final.

II. Claims 22, 28, 29, 33, 38, 57, 60-62, 70, and 84 Are Patentable in View of the Prior Art

In the Office Action of July 7, 2006, the Examiner rejected each of independent claims 22, 28, 29, 33, 38, 57, 60-62, 70, and 84, asserting that each claim is obvious in view of the prior art. In rejecting these independent claims, the Examiner relied upon Asano as the primary reference in an obviousness rejection. As will be described in more detail below, neither Asano, nor any of the other cited art, either alone or in combination, adequately support a prima facie case of obviousness.

As amended, independent claim 22 recites, *inter alia*, a guide wire having an elongate core and a continuous coil. The coil has an inner diameter and an outer diameter and extends beyond the distal end of the core by a plurality of non-contacting turns of the coil. A polymeric tip extends from a distal portion of the coil. The tip connects to the core by a polymeric material provided within spaces between non-contacting adjacent turns of the coil such that the polymeric material encloses at least an area inside the inner diameter of the coil and up to the outer diameter of the coil. Claims 28, 29, 33, and 38 include similar recitations.

Moreover, each of independent claims 57, 60-62, 70, and 84 recites, *inter alia*, a guide wire having an elongate core and a continuous coil that extends beyond the distal end of the core by a plurality of turns of the coil. The plurality of the turns include non-contacting adjacent turns defining spaces extending to an outer diameter of the adjacent turns. A polymeric tip extends from a distal portion of the coil. The tip connects to the core by a polymeric material that entirely fills said spaces between the adjacent turns of the coil.

For the reasons that follow, the cited references fail to teach or suggest, either alone or in combination, each and every recitation of these independent claims.

In the Office Action of July 7, 2006, the Examiner relies on the disclosure of FIG. 8 of Asano. More particularly, the Office Action relies on coil 21 and material 12 in FIG. 8 of Asano as allegedly corresponding to the claimed coil and polymeric tip. (See, e.g., July 7, 2006, Office Action under headings 3-5 and 9). Coil 21 disclosed in Asano, however, has adjacent turns that are in contact with each other with no spaces defined therebetween. Asano only teaches a coil having approximately six *contacting* adjacent turns mounted over a distal portion of a wire 11.

The Examiner concedes this deficiency of Asano on pages 5 and 9 of the July 7, 2006 Office Action, explaining that "Asano et al. fails to disclose. . .the plurality of turns including non-contacting adjacent turns...." (July 7, 2006, Office Action, p. 5). The Examiner attempts to compensate for the above-noted deficiency in Asano by pointing to the disclosure of Gambale. In particular, page 5 of the Office Action provides that:

> Gambale discloses a guide wire having an elongate core and a coil surrounding a portion of the core. Gambale teaches varying the flexibility characteristics by providing the coil with a pitch that varies (Col. 3, lines 52-61). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the coil as disclosed by Asano et al. to include a pitch that varies in order to arrive at a desired flexibility of the distal end region (Col. 3, lines 52-61). By modifying the pitch of the coil, spaces would be created between adjacent turns of the coil that would be filled with polymeric material (12) when immersed into the resin liquid [0032].

Applicants dispute this suggested modification and assert that one of ordinary skill in the art would not be motivated to alter the pitch of coil 21 as proposed for at least the following reasons. Based on a reading of the translation and abstract of Asano

provided,[2] however, it is clear that the underlying purpose of the invention is to provide a guide wire with enhanced "radiopacity" for contrast during imaging. (See, e.g., paragraph [0007] of the machine translation). In reaching this goal, in one embodiment a coil 21 is provided solely to enhance adhesion of a radiopaque resin 12 to the tip of wire 11. (see paragraph [0032] of the translation). Specifically, the coil 21 is attached to the tip of wire 11 by soldering, and then the coil 21 is immersed in resin to adhere the resin film 12, which includes "radiopacity" material (see, e.g. paragraphs [0030] and [0032] of the machine translation), to the tip part 11a. Applicants can find no disclosure in Asano concerned with enhancing the flexibility of the guide wire.

Even if one were motivated to increase the flexibility of Asano, however, there is no basis to assert that altering the pitch of coil 21 would achieve such a result. For example, as seen in FIG. 8 of Asano, coil 21 includes approximately six contacting turns, only about two of which extend beyond the end of item 11. Accordingly, coil 21 extends along an extremely small portion of the guide wire 20. As such, altering the pitch of coil 21 would not result in appreciable change in flexibility for guide wire 20 of Asano. Coil 21 in FIG. 8 of Asano simply plays little or no role in controlling the flexibility of the guide wire 20.

Moreover, the flexibility of guide wire 20 likely is already controlled by virtue of the shape of portion 11a of the underlying wire 20. In other words, flexibility of wire 20 is manipulated, if at all, through modification of the wire's cross-section rather than

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[2] The translation of Asano that accompanied the July 7, 2006 Office Action appears to be an machine translation and does not represent a precise literal translation of the disclosure, as evidenced, for example, by the extensive grammatical errors therein.

modification of the spacing along six turns of coil 21 that extend along only a very small portion of the device.

In addition, increasing the pitch of coil 21 would result in very few turns of coil 21. With less coil turns, the intended purpose of coil 21 is frustrated. That is, less coil turns will diminish the ability of coil 21 to adhere resin 12 to tip 11a, at least by virtue of less surface area on the coil 21. The suggested modification of the coil in the Asano guide wire therefore may render the coil unsuitable (or at least less suitable) for its intended purpose. See, *Tec Air, Inc. v. Denso Mfg. Michigan, Inc.*, 192 F.3d 1353, 1360, 52 USPQ2d 1294, 1298 (Fed. Cir. 1999) ("There is no suggestion to combine, however, if a reference teaches away from its combination with another source") (internal citations omitted).

Accordingly, for at least the reasons presented above, there is no motivation to modify the device of Asano with the device of Gambale. Applicants therefore submit that the cited references fail to teach or suggest, either alone or in combination, at least the features of a plurality of non-contacting turns of the coil extending beyond a distal end of a core and a polymeric material provided within spaces between adjacent non-contacting turns of the coil, as recited in independent claims 22, 28, 29, 33 and 38. Therefore, for at least the reasons presented above, the cited prior art fails to teach or suggest the subject matter recited in claims 22, 28, 29, 33 and 38, and all of the claims dependent thereon.

In addition, the cited references fail to teach or suggest, either alone or in combination, at least the features of a plurality of the turns including non-contacting adjacent turns defining spaces extending to an outer diameter of the adjacent turns, and

a polymeric tip that connects to the core by a polymeric material that entirely fills said spaces between the adjacent turns of the coil, as recited in claims 57, 60-62, 70, and 84. Therefore, for at least the reasons presented above, the cited prior art also fails to teach or suggest the subject matter recited in claims 57, 60-62, 70, and 84, and all of the claims dependent thereon.

III. Conclusion

In view of the foregoing remarks, this claimed invention is neither anticipated nor rendered obvious in view of the prior art references cited against this application. Applicants therefore request Examiner's reconsideration and reexamination of the application, and the timely allowance of the pending claims.

The Office Action contains characterizations of the claims and the related art with which Applicants do not necessarily agree. Unless expressly noted otherwise, Applicants decline to subscribe to any statement or characterization in the Office Action.

In discussing the specification, claims, and drawings in this Amendment, it is to be understood that Applicants are in no way intending to limit the scope of the claims to any exemplary embodiments described in the specification and/or shown in the drawings. Rather, Applicants are entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation, and applicable case law.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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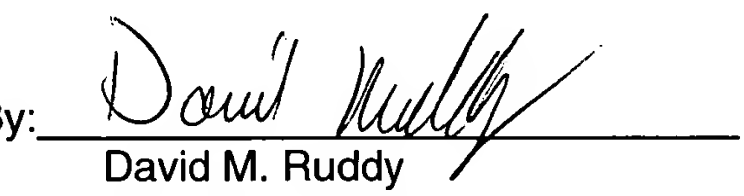
By: 
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